

January 29, 2003

**Re: Toray Resin Company 145-16485-00021**

TO: Interested Parties / Applicant

FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

**Notice of Decision: Approval - Effective Immediately**

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for consideration at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure

FNPER.wpd 8/21/02

January 29, 2003

Mr. Michiyuki Nakase  
Toray Resin Company  
821 West Mausoleum Road  
Shelbyville, Indiana 46176

Re: 145-16485  
First Significant Permit Revision to  
MSOP 145-15030-00021

Dear Mr. Nakase:

Toray Resin Company was issued a minor source operating permit on January 14, 2002 for a polypropylene pellet production source. A letter requesting a revision to this permit was received on August 20, 2002. Pursuant to the provisions of 326 IAC 2-6.1-6(i) a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the changes in the production capacities of lines P1 through P7.

The following construction conditions are applicable to the proposed project:

1. The data and information supplied with the application shall be considered part of this permit revision approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Pursuant to IC 13-15-5-3, this approval to construct becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-6.1-6, the minor source operating permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this permit revision which includes this letter, the attached operating conditions applicable to these emission units, and revised permit pages to the front of the

original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Aida De Guzman at OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Aida De Guzman or extension (3-4972), or dial (317) 233-4972.

Sincerely,

Original Signed by Paul Dubenetzky  
Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

Attachments

APD

cc: File - Shelby County  
U.S. EPA, Region V  
Shelby County Health Department  
Air Compliance Section Inspector - DJ Knotts  
Compliance Data Section - Karen Nowak  
Administrative and Development  
Technical Support and Modeling - Michele Boner

# **MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY**

**Toray Resin Company  
821 West Mausoleum Road  
Shelbyville, Indiana 46176**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

|   |                                 |
|---|---------------------------------|
| Operation Permit No.: MSOP 145-15030-00021  |                                 |
| Issued by:<br>Paul Dubenetzky, Branch Chief<br>Office of Air Quality                                    | Issuance Date: January 14, 2002 |
| 1 <sup>st</sup> Significant Permit Revision No.: 145-16485  | Pages Affected: 4, 5, 14, 15    |
| Issued by: Original Signed by Paul Dubenetzky<br>Paul Dubenetzky, Branch Chief<br>Office of Air Quality | Issuance Date: January 29, 2003 |

## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

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The Permittee owns and operates a stationary source for the compounding of plastic pellets consisting of thermoplastic and engineering resins.

Authorized Individual: Yasuyuki Miyoshi  
Source Address: 821 West Mausoleum Road, Shelbyville, Indiana 46176  
Mailing Address: 821 West Mausoleum Road, Shelbyville, Indiana 46176  
Phone Number: (317) 398-7833  
SIC Code: 3087  
County Location: Shelby  
County Status: Attainment for all criteria pollutants  
Source Status: Minor Source, under PSD Rules;  
Minor Source, Section 112 of the Clean Air Act

### A.2 Emissions units and Pollution Control Equipment Summary

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This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) One (1) plastic pellet production line, identified as P1 with a capacity of 3,200 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- (b) One (1) plastic pellet production line, identified as P2 with a capacity of 800 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- (c) One (1) plastic pellet production line, identified as P3 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- (d) One (1) plastic pellet production line, identified as P4 with a capacity of 3,200 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- (e) One (1) plastic pellet production line, identified as P5 with a capacity of 3,200 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler,

pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

- (f) One (1) plastic pellet production line, identified as P6 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- (g) One (1) plastic pellet production line, identified as P7 with a capacity of 2,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

The PM emission from all seven (7) pellet production lines is controlled by one (1) dust collector and exhausting to vent ES-1.

- (h) Various natural gas-fired space heaters with a total heat input capacity of 5.3 million British thermal Units per hour (mmBtu/hr).

#### A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is not required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is not a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is not an affected source under Title IV (Acid Deposition Control) of the Clean Air Act, as defined in 326 IAC 2-7-1(3);
- (c) It is not a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## SECTION D.1

## EMISSIONS UNIT OPERATION CONDITIONS

- (a) One (1) plastic pellet production line, identified as P1 with a capacity of 3,200 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- (b) One (1) plastic pellet production line, identified as P2 with a capacity of 800 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- (c) One (1) plastic pellet production line, identified as P3 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- (d) One (1) plastic pellet production line, identified as P4 with a capacity of 3,200 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- (e) One (1) plastic pellet production line, identified as P5 with a capacity of 3,200 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- (f) One (1) plastic pellet production line, identified as P6 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- (g) One (1) plastic pellet production line, identified as P7 with a capacity of 2,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

The PM emission from all seven (7) pellet production lines is controlled by one (1) dust collector and exhausting to vent ES-1.

- (h) Various natural gas-fired space heaters with a total heat input capacity of 5.3 million British thermal Units per hour (mmBtu/hr).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

## Emission Limitations and Standards

### D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2, the PM emissions from the following facilities shall be limited using the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

| FACILITY ID | PROCESS WEIGHT RATE (pounds/hour) | PROCESS WEIGHT RATE (tons/hour) | PM ALLOWABLE EMISSIONS (pounds/hour) |
|-------------|-----------------------------------|---------------------------------|--------------------------------------|
| Line P1     | 3,200                             | 1.6                             | 5.6                                  |
| Line P2     | 800                               | 0.4                             | 2.2                                  |
| Line P3     | 1,000                             | 0.5                             | 2.58                                 |
| Line P4     | 3,200                             | 1.6                             | 5.6                                  |
| Line P5     | 3,200                             | 1.6                             | 5.6                                  |
| Line P6     | 1,000                             | 0.5                             | 2.58                                 |
| Line P7     | 2,000                             | 1                               | 4.1                                  |

Production Lines P1 through P7 shall have a total PM allowable emissions of 28.26 pounds per hour.

**D.1.2 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]**

The VOC potential emissions from the plastic pellet production lines P1 through P7 are each less than 25 tons per year. Therefore, the Best Available Control Technology (BACT) requirement in 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) does not apply. Any change or modification which may increase each production line VOC potential emissions to 25 tons per year or greater shall obtain OAQ approval before such change may occur.

**Compliance Determination Requirements**

**D.1.3 Testing Requirements [326 IAC 2-1.1-11]**

During the period between 90 and 180 days after issuance of this permit, the Permittee shall perform an initial PM and PM-10 testing in order to validate the emission factor used in the emission calculations, verify the level of approval, and to determine compliance with Condition D.1.1, utilizing methods as approved by the Commissioner. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

**Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

**D.1.4 Particulate Matter (PM)**

The dust collector for PM control shall be in operation at all times whenever any pellet production line is in operation.

**Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

**D.1.5 Record Keeping Requirements**

- (a) To document compliance with Conditions D.1.2, the Permittee shall maintain records of the amount of total materials used in each process line.





## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for a Significant Permit Revision

#### Source Background and Description

|  |   |
|--|---|
| Source Name:                                 | Toray Resin Company                                 |
| Source Location:                             | 821 West Mausoleum Road, Shelbyville, Indiana 46176 |
| County:                                      | Shelby  |
| SIC Code:                                    | 3087  |
| MSOP No.:                                    | 145-15030-00021                                     |
| MSOP Issuance Date:                          | January 14, 2002                                    |
| 1 <sup>st</sup> Significant Permit Revision: | 145-16485   |
| Permit Reviewer:                             | Aida De Guzman                                      |

The Office of Air Quality (OAQ) has reviewed a revision application from Toray Resin Corporation relating to the following changes to the polypropylene pellet production (changes are **bolded** and deletions are ~~struck-through~~ for emphasis).

Request 1: The plant has performed a stack test on July 8, 2002, which was validated by the Compliance Data Section to verify the pellet production facility emission factors used to calculate the potential to emit (PTE) particulate matter (PM) and particulate matter less than 10 microns (PM10). Lines P1, P2, P4, P5, P6 and P7 were operated at capacity during the stack test. The following table summarizes the rated capacities of each of the pellet production lines, the actual production rate during the stack test and the requested corrected permit capacities:

| Line         | Permitted Capacity<br>(lbs/hr) | Production Capacity<br>During the Stack Test<br>(lbs/hr) | Requested<br>Permit Capacity<br>(lbs/hr) |
|--------------|--------------------------------|--|--|
| P1           | 3,000                          | 3,200  | 3,200                                    |
| P2           | 1,000                          | 800  | 800                                      |
| P3           | 1,000                          | 0  | 1,000                                    |
| P4           | 3,000                          | 3,200  | 3,200                                    |
| P5           | 1,000                          | 3,200  | 3,200                                    |
| P6           | 1,000                          | 1,000  | 1,000                                    |
| P7           | 3,000                          | 2,000  | 2,000                                    |
| <b>TOTAL</b> | <b>13,000</b>                  | <b>13,400</b>  | <b>14,400</b>                            |

The average of the three test runs performed was 7.36 pounds of PM per hour and 8.20 pounds of PM10 per hour. Since the production rate during the test was 13,400 pounds/hour (6.7 tons/hr) the corrected emission factors are:

7.36/6.7 = 1.098 lbs PM/ton (0.549 lb/1000 lb) of plastic pellet product  
8.20/6.7 = 1.224 lbs PM10/ton (0.612 lb/1000lb) of plastic pellet product

Toray requests that the emission factors for plastic pellet production on Page 3 of 9 of the Technical Support Document be modified to reflect the results of the stack test.

Reply 1: A re-calculation of the PM and PM10 emissions will be made using the emission factors established during the stack test.

| Line  | Permitted Capacity (lbs/hr) | *PM PTE (tons/yr) | *PM10 PTE (tons/yr) | *VOC PTE (tons/yr) | *HAPs PTE (tons/yr) | Requested Capacity (lbs/hr) | PM PTE (tons/yr) | PM10 PTE (tons/yr) | VOC PTE (tons/yr) | HAPs PTE (tons/yr) | PM Emission Change (tons/yr) | PM10 Emission Change (tons/yr) | VOC Emission Change | HAPs Emission Change (tons/yr) |
|-------|-----------------------------|-------------------|---------------------|--------------------|---------------------|-----------------------------|------------------|--------------------|-------------------|--------------------|------------------------------|--------------------------------|---------------------|--------------------------------|
| P1    | 3,000                       | 1.76              | 1.76                | 8.0                | 4.34 single HAP     | 3,200                       | 7.695            | 8.58               | 8.5               | 4.807 single HAP   | 5.9                          | 6.83                           | 0.5                 | 0.46 single HAP                |
| P2    | 1,000                       | 0.59              | 0.59                | 2.67               | 4.39 combined HAPs  | 800                         | 1.92             | 2.14               | 2.14              | 4.86 combined HAPs | 1.33                         | 1.55                           | -0.53               | 0.47 combined HAPs             |
| P3    | 1,000                       | 0.59              | 0.59                | 2.67               |                     | 1,000                       | 2.405            | 2.68               | 2.67              |                    | 1.815                        | 2.09                           | 0                   |                                |
| P4    | 3,000                       | 7.75              | 7.75                | 8.0                |                     | 3,200                       | 7.695            | 8.58               | 8.5               |                    | -0.055                       | 0.83                           | 0.5                 |                                |
| P5    | 1,000                       | 2.59              | 2.59                | 2.67               |                     | 3,200                       | 7.695            | 8.58               | 8.5               |                    | 5.105                        | 5.99                           | 5.83                |                                |
| P6    | 1,000                       | 2.59              | 2.59                | 2.67               |                     | 1,000                       | 2.405            | 2.68               | 2.67              |                    | -0.185                       | 0.09                           | 0                   |                                |
| P7    | 3,000                       | 7.75              | 7.75                | 8.0                |                     | 2,000                       | 4.809            | 5.36               | 5.3               |                    | -2.94                        | - 2.39                         | -2.7                |                                |
| TOTAL | 13,000                      | 23.6              | 23.6                | 34.68              |                     | 14,400                      | 34.59            | 38.60              | 38.28             |                    | 10.97                        | 15.00                          | 3.6                 |                                |

\* PTE determined in MSOP 145-15030-00021

Methodology:

PM = Requested Capacity, lb/hr \* ton/2000 lb \* PM Ef, 1.098 lb/ton \* 8760 hrs/yr \* ton/2000 lb

PM10 = Requested Capacity, lb/hr \* ton/2000 lb \* PM Ef, 1.224 lb/ton \* 8760 hrs/yr \* ton/2000 lb

Single HAP = Total Requested Production Rate/Permitted Capacity \* permitted single HAP, 4.34 tons/yr

Combined HAPs = Total Requested Production Rate/Permitted Capacity \* permitted combined HAPs 4.39 tons/yr

VOC = Requested capacity \* ton/2000 lb \* 1.22 lb/ton \* ton/2000 lb \* 8760 hrs/yr

Section A.2 will be revised to incorporate the new capacities as follows:

## A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- One (1) plastic pellet production line, identified as P1 with a capacity of ~~3,000~~ **3,200** pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- One (1) plastic pellet production line, identified as P2 with a capacity of ~~1,000~~ **800** pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic

pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

- (c) One (1) plastic pellet production line, identified as P3 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- (d) One (1) plastic pellet production line, identified as P4 with a capacity of ~~3,000~~ **3,200** pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- (e) One (1) plastic pellet production line, identified as P5 with a capacity of ~~4,000~~ **3,200** pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- (f) One (1) plastic pellet production line, identified as P6 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.
- (g) One (1) plastic pellet production line, identified as P7 with a capacity of ~~3,000~~ **2,000** pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

The PM emission from all seven (7) pellet production lines is controlled by one (1) dust collector and exhausting to vent ES-1.

Request 2: Toray requests that Section D.1.1 be modified to include a total PM allowable emissions limit for all seven process lines combined. The total limit would be the sum of the individual limits on the seven process lines. Adding a total limit will allow a direct verification of compliance with the process weight rate limit by means of the stack test result.

Reply 2: The individual PM limit in Condition D.1.1 for the seven process lines will be changed to include a total PM limit for all seven process lines.

#### D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2, the PM emissions from the following facilities shall be limited using the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

| FACILITY ID | PROCESS WEIGHT RATE (pounds/hour) | PROCESS WEIGHT RATE (tons/hour) | PM ALLOWABLE EMISSIONS (pounds/hour) |
|-------------|-----------------------------------|---------------------------------|--------------------------------------|
| Line P1     | <del>3,000</del> <b>3,200</b>     | <del>1.5</del> <b>1.6</b>       | <del>5.38</del> <b>5.6</b>           |
| Line P2     | <del>1,000</del> <b>800</b>       | <del>0.5</del> <b>0.4</b>       | <del>2.58</del> <b>2.2</b>           |
| Line P3     | 1,000                             | 0.5                             | 2.58                                 |
| Line P4     | <del>3,000</del> <b>3,200</b>     | <del>1.5</del> <b>1.6</b>       | <del>5.38</del> <b>5.6</b>           |
| Line P5     | <del>1,000</del> <b>3,200</b>     | <del>0.5</del> <b>1.6</b>       | <del>5.38</del> <b>5.6</b>           |
| Line P6     | 1,000                             | 0.5                             | 2.58                                 |
| Line P7     | <del>3,000</del> <b>2,000</b>     | <del>1.5</del> <b>1</b>         | <del>5.38</del> <b>4.1</b>           |

**Production Lines P1 through P7 shall have a total PM allowable emissions of 28.26 pounds per hour.**

### History

On August 20, 2002, Toray Resin Corporation submitted an application to the OAQ requesting a change to the issued Minor Source Operating Permit (MSOP 145-15030-00021), issued on January 14, 2002.

### Recommendation

The staff recommends to the Commissioner that the Significant Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on August 20, 2002, with additional information received on September 11, 2002.

### Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

| Pollutant       | Potential To Emit (tons/year) |
|-----------------|-------------------------------|
| PM              | 34.58                         |
| PM-10           | 38.60                         |
| SO <sub>2</sub> | 0.0                           |
| VOC             | 38.28                         |
| CO              | 0.0                           |
| NO <sub>x</sub> | 0.0                           |
| Single HAP      | 4.807                         |
| Combined HAPs   | 4.86                          |

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

### Justification for the Approval Level

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of particulate matter (PM), particulate matter less than ten microns (PM<sub>10</sub>) or volatile organic compounds (VOC) are each greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1-6(i), Significant Permit Revision.

### Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

|   | Limited Potential to Emit<br>(tons/year) |        |                 |       |     |                 |      |
|---|--|--------|-----------------|-------|-----|-----------------|------|
| Process/facility  | *PM                                      | *PM-10 | SO <sub>2</sub> | VOC   | CO  | NO <sub>x</sub> | HAP  |
| Pellet Production Line (P1 thru P7) at Permitted Capacity | 0.04                                     | 0.04   | 0.0             | 34.68 | 0.0 | 0.0             | 4.39 |
| Pellet Production Line (P1 thru P7) at New Capacity       | 0.044                                    | 0.044  | 0.0             | 38.28 | 0.0 | 0.0             | 4.86 |
| Pellet Production Line (P1 thru P7) Increase Capacity     | 0.004                                    | 0.004  | 0.0             | 3.6   | 0.0 | 0.0             | 0.4  |

\* PM/PM<sub>10</sub> is controlled by a dust collector with control efficiency of 99.8%

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD threshold of 250 tons per year. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

### County Attainment Status

The source is located in Shelby County.

| Pollutant       | Status         |
|-----------------|----------------|
| PM-10           | attainment     |
| SO <sub>2</sub> | attainment     |
| NO <sub>2</sub> | attainment     |
| Ozone           | attainment     |
| CO              | attainment     |
| Lead            | not determined |

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Shelby County has been designated as attainment or unclassifiable for ozone.

### Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

#### **State Rule Applicability - Entire Source**

- (a) 326 IAC 2-6 (Emission Reporting)  
This source, based on its new capacity is still not located in any of the counties listed in the rule that emits more than 10 tons per year of VOC, nor does it emit 100 tons per year of any pollutant.
- (b) 326 IAC 5-1 (Visible Emissions Limitations)  
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:
  - (1) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### **State Rule Applicability - Individual Facilities**

- (a) 326 IAC 8-1-6 (General Reduction Requirements)  
This rule applies to new facilities existing as of January 30, 1980, with potential volatile organic compounds (VOC) emissions of 25 tons per year or greater located anywhere in the state, which are not otherwise regulated by other provisions of article 8. The plastic pellets production lines P1 through P7 are not subject to 326 IAC 8-1-6, because each potential VOC emissions based on the new capacities are less than 25 tons per year.
- (b) There are no other provisions in article 326 IAC 8 that applies to this plastic pellet production source.
- (c) 326 IAC 6-3-2 (Process Operations)  
Please see page 3 of this TSD for the new PM allowable.
- (d) 326 IAC 2-4.1-1 (New Toxics Control)  
This rule applies to owner or operator who construct or reconstructs a major source of HAPs existing after July 27, 1997. The source, based on the new capacity is not subject to this rule, since it is not a major source of HAPs and its existence predates the applicability date of the rule.

#### **Conclusion**

The operation of this plastic compounding for polypropylene pellet production shall be subject to the conditions of the attached **Significant Permit Revision 145-16485-00021**.